What is claimed is:

1. Crystalline polymorph Form I of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide.

2. A crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide that exhibits an X-ray powder diffraction pattern having characteristic peaks expressed in degrees 2 θ at about 14.5 and 20.1 ± 0.2 °2θ.

3. The crystalline polymorph of claim 2, wherein the crystalline polymorph further exhibits a characteristic peak at about 10.4 ± 0.2 °2θ.

4. The crystalline polymorph of claim 3, wherein the crystalline polymorph exhibits the characteristic peaks at about 10.4, 14.5, 16.7, 17.2, 18.0, 19.0, 20.1, 20.6, 21.2, 21.9, 22.6, 25.8, 26.6, 27.9, and 29.4 ± 0.2 °2θ.

5. The crystalline polymorph of claim 2, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern substantially the same as that shown in Figure 1

6. A crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide that exhibits a chemical shift in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 14.3 ± 0.2 ppm.

7. The crystalline polymorph of claim 6, wherein the crystalline polymorph further exhibits a chemical shift at about 21.9 ± 0.2 ppm.

8. The crystalline polymorph of claim 6, wherein the crystalline polymorph further exhibits a chemical shift at about 167.8 ± 0.2 ppm.

9. The crystalline polymorph of claim 7, wherein the crystalline polymorph further exhibits a chemical shift at about 167.8 ± 0.2 ppm.

10. A crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide that exhibits a chemical shift in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 21.9 ± 0.2 ppm.

11. The crystalline polymorph of claim 10, wherein the crystalline polymorph further exhibits a chemical shift at about 167.8 ± 0.2 ppm.

12. A crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide that exhibits a chemical shift in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 167.8 ± 0.2 ppm.

13. The crystalline polymorph of claim 6, that exhibits chemical shifts in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 14.3, 21.9, 44.2, 83.5, 113.3, 132.2, 143.9, 146.6, 152.7, and 167.8 ± 0.2 ppm.

14. A crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide that exhibits delta values in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum of about 7.6, 29.9, 69.2, 99.0, 117.9, 129.6, 132.3, 138.4, and 153.5.

15. The crystalline polymorph of claim 14, wherein the crystalline polymorph exhibits a ^{13}C Solid State Nuclear Magnetic Resonance spectrum substantially the same as that shown in Figure 2.

16. A crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide that exhibits a single crystal X-ray crystallographic analysis at 295 K with crystal parameters that are approximately equal to the following:

Parameter	Form I
Space group	$P2_1/c$ (No. 14)
Cell dimensions	
a (Å)	6.9760 (5)
b (Å)	25.0623 (17)
c (Å)	9.1369 (5)
β (°)	100.92 (4)
Volume (Å^3)	1568.5 (5)
Z (Molecules/unit cell)	4
Density (g/cm^3)	1.293

17. Crystalline polymorph Form II of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide.

18. A variable-water hydrate crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide.

19. The crystalline polymorph of claim 18, wherein the polymorph is a hydrate.

20. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern having characteristic peaks expressed in degrees 2 θ at about 12.5 and 21.4 ± 0.2 °2θ.

21. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern having characteristic peaks expressed in degrees 2 θ at about 12.5 and 21.2 ± 0.2 °2θ.

22. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern having characteristic peaks expressed in degrees 2 θ at about 8.1, 11.0, 12.5, 13.3, 15.0, 16.8, 17.5, 18.0, 21.4, 22.2, 24.5, 25.1, 25.3, 25.7, 26.7, 27.1, 27.7, 28.2, and 30.3 ± 0.2 °2θ.

23. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern having characteristic peaks expressed in degrees 2 θ at about 7.9, 10.6, 12.5, 14.8, 16.4, 16.8, 17.6, 21.2, 23.9, 24.1, 25.2, 25.5, 26.4, 27.0, 27.2, 27.4, and 28.3 ± 0.2 °2θ.

24. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern substantially the same as that shown in Figure 6.

25. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern substantially the same as that shown in Figure 7.

26. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits a chemical shift in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 13.1 and 23.6 ± 0.2 ppm.

27. The crystalline polymorph of claim 26, wherein the crystalline polymorph exhibits chemical shifts in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 13.2, 23.6, 44.9, 79.0, 111.3, 130.7, 142.7, 145.3, 149.3, 153.1, 171.7, and 173.8 ± 0.2 ppm.

28. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits a difference between the lowest ppm peak and another peak in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum of about 10.4 ppm.

29. The crystalline polymorph of claim 28, wherein the crystalline polymorph exhibits delta values in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum of about 10.4, 31.7, 65.8, 98.1, 117.5, 129.5, 132.1, 136.1, 139.9, 158.5, and 160.6 ppm.

30. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern substantially the same as that shown in Figure 9.

31. A crystalline polymorph of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide that exhibits a single crystal X-ray crystallographic analysis at 150 K with crystal parameters that are approximately equal to the following:

Parameter	Form II
Space group	$P2_1/c$ (No. 14)
Cell Dimensions	
a (Å)	11.1896 (9)
b (Å)	6.9236 (5)
c (Å)	20.986 (2)
β (°)	99.089 (3)
Volume (Å^3)	1605.4 (4)
Z (Molecules/unit cell)	4
Density (g/cm^3)	1.300

32. Crystalline polymorph Form III of N-[3-(3-cyanopyrazolo[1,5a]pyrimidin-7-yl)phenyl]-N-ethylacetamide.

33. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern having characteristic peaks expressed in degrees 2 θ at about 8.0 and 16.2 ± 0.2 °2θ.

34. The crystalline polymorph of claim 33, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern having characteristic peaks expressed in degrees 2 θ at about 8.0, 11.2, 16.2, 17.1, 17.6, 24.3, and 25.1 ± 0.2 °2θ.

35. The crystalline polymorph of claim 34, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern substantially the same as that shown in Figure 11.

36. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits chemical shifts in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 12.1 and 12.4 ± 0.2 ppm.

37. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits chemical shifts in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum at about 22.8 and 25.8 ± 0.2 ppm.

38. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits a difference between the lowest ppm peak and another peak in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum of about 13.7 ppm.

39. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits a chemical shift in a ^{13}C Solid State Nuclear Magnetic Resonance at about 171.6 ± 0.2 ppm.

40. The crystalline polymorph of claim 39, wherein the crystalline polymorph exhibits chemical shifts in a ^{13}C Solid State Nuclear Magnetic Resonance at about 12.1, 12.4, 22.8, 25.8, 44.1, 45.5, 79.0, 81.1, 111.0, 113.4, 131.4, 143.3, 145.7, 149.0, 150.1, 153.0, 155.5, and 171.6 ± 0.2 ppm.

41. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits a difference between the lowest ppm peak and another peak in a ^{13}C Solid State Nuclear Magnetic Resonance of about 159.5 ppm.

42. The crystalline polymorph of claim 41, wherein the crystalline polymorph exhibits delta values in a ^{13}C Solid State Nuclear Magnetic Resonance spectrum of about 0.3, 10.7, 13.7, 32.0, 33.4, 66.9, 69.0, 98.9, 101.3, 119.3, 131.2, 133.6, 136.9, 138.0, 140.9, 143.4, and 159.5 ppm.

43. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits an X-ray powder diffraction pattern substantially the same as that shown in Figure 11.

44. The crystalline polymorph of claim 18, wherein the crystalline polymorph exhibits a ^{13}C Solid State Nuclear Magnetic Resonance spectrum substantially the same as that shown in Figure 12.

45. A pharmaceutical composition comprising a therapeutically effective amount of an anhydrous crystalline polymorph of zaleplon and a pharmaceutically acceptable carrier or diluent.

46. The pharmaceutical composition of claim 45, wherein the pharmaceutical composition comprises at least about 90% by weight of Form I of zaleplon, based upon 100% total weight of zaleplon in the pharmaceutical composition.

47. The pharmaceutical composition of claim 46, wherein the pharmaceutical composition comprises at least about 95% by weight f Form I of zaleplon, based upon 100% total weight of zaleplon in the pharmaceutical composition.

48. A pharmaceutical composition comprising a therapeutically effective amount of a hydrate crystalline polymorph of zaleplon and a pharmaceutically acceptable carrier or diluent.

49. The pharmaceutical composition of claim 48, wherein the pharmaceutical composition comprises at least about 90% by weight of Form II of zaleplon, based upon 100% total weight of zaleplon in the pharmaceutical composition.

50. The pharmaceutical composition of claim 49, wherein the pharmaceutical composition comprises at least about 95% by weight of Form II of zaleplon, based upon 100% total weight of zaleplon in the pharmaceutical composition.

51. The pharmaceutical composition of claim 48, wherein the pharmaceutical composition comprises at least about 90% by weight of Form III of zaleplon, based upon 100% total weight of zaleplon in the pharmaceutical composition.

52. The pharmaceutical composition of claim 51, wherein the pharmaceutical composition comprises at least about 95% by weight of Form III of zaleplon, based upon 100% total weight of zaleplon in the pharmaceutical composition.

53. A method of treating anxiety in an animal in need thereof comprising administering an anti-anxiety effective amount of Form I, II, or III of zaleplon or a mixture thereof.

54. A method of treating epilepsy in an animal in need thereof comprising administering an anti-epilepsy effective amount of Form I, II, or III of zaleplon or a mixture thereof.

55. A method of inducing a sedative-hypnotic effect in an animal in need thereof comprising administering a sedative-hypnotic effective amount of Form I, II, or III of zaleplon or a mixture thereof.

56. A method of inducing muscle relaxation in an animal in need thereof comprising administering a skeletal muscle relaxing effective amount of Form I, II, or III of zaleplon or a mixture thereof.

57. A process for preparing Form I of zaleplon comprising:

(i) providing a non-aqueous solution of zaleplon;

(ii) heating the solution to at least about 40° C; and

(iii) cooling the solution.

58. A process for preparing Form I of zaleplon comprising:

(i) providing a non-aqueous solution of zaleplon; and

(ii) evaporating the solvent in the solution to yield Form I of zaleplon.

59. A process for preparing Form I of zaleplon comprising heating one or more of Forms II and III of zaleplon at an effective temperature to yield Form I of zaleplon.

60. A process for preparing Form II of zaleplon comprising:

(i) dissolving zaleplon in a non-aqueous solvent to form a solution; and

(ii) adding water to the solution.

61. A process for preparing Form III of zaleplon comprising.

(i) providing a solution containing zaleplon dissolved in an aqueous solvent; and

(ii) evaporating the solvent.